

## II-11. Itthi:

### Sensory and Psychological Perception

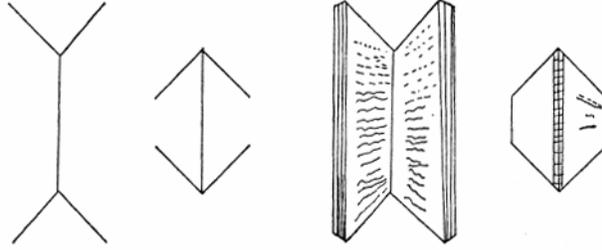
Where the shallow sand is smooth, there is a path.

Where the flowing water is slow, there is no sand.

- *An ancient saying.*

The 12th Ang of Mahaveer is called *itthivay*. *Itthi* characterizes the levels of dynamics inherent in the observer-observed interactions as in the fourteen Gunasthan (See Jeevatthan #9-22). The ancient Prakrit term *itthi* is best understood as the sensory and psychological perceptions that guide decisions. Even with best of intentions our actions are dominated by the augmented perceptions. Reasoning (*Nay*) articulates awareness and cognition of what is in front of eyes (*pratyakch*), as well as the feelings and experience (*parokch* or behind the eyes). Reason refines sense inputs and perceptions make up what is not cognized but is necessary for making a valid decision to respond to a new sense experience. The *Kevali* perception is consistent with all available evidence, and therefore likely to result in valid outcomes. On the other hand, the *mithya* perception contradicts available evidence, therefore resulting actions lead to inconsistent, incongruent, uncertain, and conflicted outcomes.

The range covered by the concept of *itthi* is much the same as that of word perception in current common usage in English. With its 300 year of usage the word perception also has associated baggage: It is varyingly used for momentary input, awareness, consciousness, and psychosomatic responses.



**Figure.** *Muller-Lyer illusion in visual perception: The vertical middle line in the first and third part appear (perceived) longer than in the second or the fourth. All the four lines are of the same length. The illusion is said to occur because the brain expands the more distant lines connected to the ends of the middle line.*

### **Word boundaries of Perception**

*Itthi* in Jeevatthan (#A9-22) is interpreted as the perception that guides response. Perception is the overt (sensory) and covert (psychological) information processing. It integrates the sense experience (sense-inputs, information, awareness, cognition, knowledge) and the prior experience to evaluate the future outcomes. Perception is validated by cognition of the information content (knowledge) of the inputs and experience. However perception projects such information for the future outcomes. The same heuristics come into play even when different individuals act differently on the basis of apparently the same information. Although most cultures have tried to grasp the realm of perception in many ways, none has placed a greater emphasis than the itthivay tradition of Jeevatthan, and the Nay reasoning to find ways to validate perceptions.

In Gatha Sapt-Sati (ca 200 CE), a compilation of Prakrit poetry, the word *itthi* is used to express the dynamics (*khinchatani*) of sense experiences. *Itthi* is not to be confused with the Pali word *iddhi* for woman (or on guard).

The concept boundary of the Prakrit word *itthi* is not coterminous with any other word in Sanskrit or Hindi. After 400 CE *itthi* has been misinterpreted as *dristi* (vision, point of view), or *darshan* (philosophy, see III-23), or *gyan* (knowledge, understanding). The corrupted form *dristi* is often approximated as ocular (eye) vision, which may be used in a somewhat broader sense as vision, visual perception, or point of view. Prakrit has separate words for such abilities. These are rooted in *dansan* (#A4 and A131) adopted in Sanskrit as *darsan*. In The Dhavla, *itthi* is interpreted in the sense of "point of view." It is also misleading because it does not cover the range or touch the depth of the word perception. Such interpretations also distract from the dynamics and quality of the observer-observed interaction.

There is no Indo-European or Sanskrit root to *itthi* or any other word related to perception. Also as far as I know there is no suitable modern Hindi or Sanskrit equivalent for *itthi*. *Itthi* is also distinctly different than what is described by the ancient terms for mind (*man*), awareness (*chatna*), speculation (*iha*), investigation (*uha*), apparent (*avay*), and determinate (*avagrah*). In the more evolved form of Sanskrit by 700 CE there are words for perceptual images (*samjana*), clear image of the invisible (*avalolit*), cognition of the whole by induction (*prjana* or *pragya*), and the abstract subject under consideration (*pramey*).

In Jeevatthan there are distinct words and concepts for vision (*chakchu-dansan*) and knowledge (*nann*). The conceptual space of perception borders on but not identical to awareness (*abhas*), appearance (*pratiti*), consciousness (*chetna*), attention (*upyog*), and cognition (*naan*). Ambivalence (*vikalp*) due to degrees of doubt and certainty without judgment is a part of perception.

Some modern scholars have interpreted *pratyakch* (a Sanskrit word, literally *in front of eyes* or evident) from Gautam's

Nyay Sutr as perception. As developed in the Nay text in this classical text *pratyakch* refers to direct evidence based on sense data. It may be based on momentary sense experience (*rjusutr*) or more elaborate awareness of the experience. Evidence (*praman*) based on the sense-data (*pratyakh*) is not perception.

As an attribute of real time information processing, perception may be approximated as what is seen by the mind's-eye. The emphasis of *pratyakch* is on what comes in the form of sense-data from what is out there, and not on what is reconstructed behind the eye (*parokch*) in the mind. Not all observers are led by same physical evidence to a similar picture of the world even if their background *compass* is similar. Perceptions drive and are also driven by feeling, sentiment, impression, ideas, illusion and allusion. Perceptions influence choices, intuition, insights, and also the fact-based reasoning as in information, knowledge, vision, and philosophy. Through nurture it builds on the common sense of the culture and upbringing. It also appeals to the uncommon sense of putting it all together in a form that is usable for the future behaviors by bringing about a coherence of thoughts, words and actions. Such validated perceptions improve the quality of observer-observed interaction (Guanasthan) for successful behaviors (III-23).

### **Mirrors and Lens**

Between 1410 and 1450 representation of perspective in Western European paintings suddenly became life-like. Although unlikely many believed it to be a sociological influence of "urbanization." For decades it was intriguing that the humans and monkeys in many of these painting were left-handed. It is now clear that the artists outlined images projected with mirrors and lens. The devise, camera-obscura, was invented around the same period.

**Augmented Perceptions.** At each stage in our being, perceptions are central to processing of sensory experience as well as use and formulation of the shared knowledge in our interactions. Patterns populate semiconscious states with the alternatives. An Arianth adage is *By meaning more, our lives yield more.* It is no longer a zero-sum game if we create value that lies in the potential. Such augmentation of perceptions is the thrust of qualitative difference between the *Itthi* states (#9-23) where perceptions crystallize into useful conception of the world and the self through actions.

#### **Observer-observed interaction for action**

**Whatever is known has always seemed systematic, proven, applicable and evident to the knower. Every alien system of knowledge and thought has likewise seemed contradictory, unproven, inapplicable, fanciful or mystical. - Fleck.**

\* The purpose of interaction is to evaluate reality. Yet we rarely, if ever, experience reality in its entirety. We experience it in parts and that too augmented by a variety of influences. Concerns and decisions about the future require a concerted approach but without the benefit of complete knowledge. The starting point for actions is to realize what lies beyond and within our grasp. This holds for virtually all area of human endeavors, ranging from solving specific problems to addressing issues of human condition in the global context.

\* Disorder of chaos and disarray characterize the observed states of doubt (Table I-1). Coherence and insight reduces doubt to facilitate rational choices for directed actions consistent with reality.

*\* Each of us carries a range of mental perspectives, and every perspective is motivated by some interest or other. Such perspectives therefore tinge the perception of events. The discovery of causal laws is the essence of science, and therefore there can be no doubt that scientific men do right to look for them... The maxim that men of science should seek causal laws is as obvious as the maxim that mushroom-gatherers should seek mushroom. ... (and then a few years later).. The laws of causality are a relic of bygone age. - Bertrand Russell.*

A range of nuances of how we perceive the world is apparent in the quotes given in the box above. Such algorithms of experience take us from noise, through dealing with uncertainty and doubt, to cure. Certainly perception relates to the ability to know (*nann*, #A115-122). But it takes more than information to wander though the mental states that set in motion by its cognition. The first four states I to IV (A#9-12) of perception have little to do with a vision or point of view, and more to do with attitudes that adversely attenuate the inputs. Such perceptions do not permit differentiation of the contradictory, paradoxical, distorted and indifferent.

Deliberate restraints are necessary to evolve through such artifacts. One begins by filtering the chatter. It may be necessary to loose some information to peel off paradoxes and illusions to realize the limits and errors in the prior. Consistency is a rational beginning with the focus to rid of distractions, wishful, desires and notions to experience the relevant inputs that cohere for their own felt quality. Cohesion of words and thought is prelude to actions useful to chart contours of reality.

### **Artifacts of Perception**

In the end, logic mirrors in its structure the fundamental properties of mind (*A. Stern*). There is always something permanently chaotic in the human perception and experience, so are the worlds of our concern. Against this backdrop perceptions develop through active interactions. Impressions are passive artifacts of the expressed states of chatter that we constantly encounter and try to filter out. Then there is always a time lag between conception and implementation. Suitably augmented aptitude, fortitude, and rectitude improve the certitude and exactitude for valid inference. However, idealized attitudes and platitudes of Platonic ghosts, including the universals of spirits and essence, often hinder perception of reality. Consider the influences exercised for loosing or augmenting the sense of self by the mega-malls, sales pitches, and charlatans of all stripes.

All conclusions are fallible simply because the evidence (information, knowledge) is never complete. Good guesswork requires efficient use of all the available information by enabling variations of rashness and caution to be distinguished from variations in the amount of the available evidence. As Chu Hsi (ca. -400c) put it: *After long expenditure of strength, and then one day in a flash, everything becoming linked up*. Possibly, these are the stages of *Avlokiteshvar Bodhisatv* in the Buddhist tradition.

### **Perceptions shape the response**

It is the nature of being to respond to inputs. The nature of response varies from simple and immediate Newtonian action-and-reaction, to the forces of gravity, to more elaborate feedback with concept development for long-range strategies.

Ability to perceive the need to respond is a key to rational behavior. It also includes self-imposed restraints and constraints.

For an organism it is a device to identify the invariant across the admissible range of the realistic choices. Choices are critical because not all responses have the same consequences. Perceived consequences tend to have threshold beyond which perceptions seem to evolve in stages, albeit on a chaotic course.

**Evolutionary rationale.** The evolutionary rationale for the graded step-wise processing of sensory information probably lies in the degree of processing necessary for fear, flight, instinctive reactions, and other uses of the partially processed inputs. Rapid response in the face of perceived danger or opportunity is part of cunning and intelligence. It elicits appropriate level of response and learning from the feedback. It is efficient to process inputs relevant for making rapid choices. However it is not conducive to propositional processing or presentation for the long term. Sooner or later with repeated experiences what seems to emerge is some sort directional processing with a strategy of efficient pruning of the tree of choices. Irrespective of the mechanism of how we do this, it is clear that templates of the past experiences often guide the choices even without significant processing of the new inputs.

**Decision-making response.** Decision-making is not necessarily the same as choosing. In this context a role for processing of perceptions can be assigned empirically. Perceptions act as a multilayered filter for the choices in relation to the inputs and desires. Processing inputs to identify and direct the choices is part of rational decision making. It charts the way for going from possible to probable to preferable. Consilience for the experiential or felt quality is the subject of representation as well as the desires and expectations. An appreciation of such qualities of the underlying reality develops through stages. To explore the range humans represent signals, information, beliefs, and facts in ways

that contribute towards actuality by trial and error. Tools of logic and theories can protect against dead-ends and the vicious circles. **Relevant states and stages.** Perception is not knowledge or vision (Chapter A). States and stages of awareness, consciousness, and perception are mentioned in related contexts. Often the distinctions are muddled, and even intermingled with things beyond the content and context of the experience. Theology has misplaced such experiences to the realm of divine insights.

Unformulated conception and thought to define perceptions may be unique to humans only in the sense that we have the advantage of cultural and historical memories, artifacts and records of actions. Possibly for such reasons, unique human abilities are often attributed to realms of consciousness through which we register awareness, process information, and make representations to develop enduring shared knowledge. Such stages outlined by Robert Nozick (2001) for the development of consciousness have remarkable resonance to those outlined 2000 years earlier as the states of perception in Jeevatthan. An advantage of representation in gradations is to avoid passionate polemics that in the history of thought has engulfed issues related to the nature of reality, truth, justified true beliefs, and the mind-body problem. Incremental changes also encourage attempts to transcend the limitations and the ranges, as in the wisdom of "divide and rule."

Beyond the idea of behavior as the feedback of perception lies another interesting question: whether we can ever understand anything other than our own conscious experience influenced by perceptions? In fact, humans do become aware of such potential when they choose to chart an ordered course for increasing reliability. It is based on the belief that usable shared knowledge of the external world has done more than all theistic constructs

combined. Through the usable products of shared knowledge we can only hope to develop more rational perception of what we have not seen and experienced before, and discard beliefs in the non-existent. Shared life-experiences increase the awareness of the validity of the experience - at least for the purpose of representation through shared conventions. This is where the social conventions, such as those of language, arts, sciences, philosophy and economics begin to enrich the experiential bases of the perceptions of our lives to explore its significance. Thus being to becoming is an integral part of the need for independence and sustainability with a goal to realize what it means to be alive. Such a course of the evolution of perception, aided by shared knowledge, takes one out of the prison of solipsist and personal knowledge.

**More to it**

Perception interprets the message you send and also the message you receive. Discernible states of perception I to XVI follow from the assertion that the quality of the interaction is a measure of the underlying state of perception. Strategies behind the states of perception, zombie to sentient, are not only of divide and conquer but also of the qualitative change of rising expectations with incremental success. Of course, one assumes that the observed remains passive in the process, which may not always be the case.

**Insight.** The quality of interaction and its outcome is critical for ascertaining the reliability of any search. This is because interpretation of the observed (sense-data) requires consideration of contradictions, assumptions, goals, means, choices, coherence and all such factors that make up reason and rationality consistent with reality. This is how usable shared knowledge evolves from bits and pieces of information.

**Insight.** Words are play tools with multidimensional reality with self-imposed and external sense of boundary. As extensions of man, tools transform his strength, his gripping ability, and perceptions into specific actions.

**Insight.** Each of us carries a range of mental perspectives. Every perspective is motivated by interest, as in self-interest. It tinges the perception of self and its relationship to the happenings.

**Insights.** Perceptions develop from sensory inputs and processing to embrace the conceptual and perceptual space in relation to the external reality. As an inherent feed-back system perceptions prepare a being for coping with the reality and evolve into conceptual framework to guide behaviors.

**Insight.** Although perceptions guide thoughts, perception is neither view-point or point of view. Both the internal and external of the nature (brain, mind) and nurture (culture) propel us to attend, ignore, and learn from events.

**Insight.** Personal growth as well as the craft and lore (natural history) are about changing perceptions. Although not vision, like other inputs (of senses and mind, as well as the hallucinogenic or divine kind) do influence perceptions.

**Insight.** Perception is not knowledge or philosophy nor is it what mystics call as the *knowledge of heart* that transcends between *been there, being there, and be there*. There is nothing there, there.

**This theme is further explored in the next four essays**

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